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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/326,214	06/03/1999	OSAMU TANITSU	103512.99	3924

7590 01/03/2002

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EXAMINER

MATHEWS, ALAN A

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 01/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/326,214

Applicant(s)

TANITSU ET AL.

Examiner

Alan A. Mathews

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-104 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-42 and 84-104 is/are allowed.
- 6) ☒ Claim(s) 43-48, 54-57, 64-68 and 76-83 is/are rejected.
- 7) ☒ Claim(s) 49-53, 58-63 and 69-75 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. 08/147,259; 08/365,532.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.                      6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Oath/Declaration***

1. Applicant's Supplemental Reissue Declaration filed December 3, 2001 corrects the defects recited in the previous office action.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 43-48, 54-57, 64-68, and 76-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (U. S. Patent No. 5,335,044, which is the U.S. equivalent to the Japanese Patent document JP-A-6-45221 cited in Applicant's PTO-1449 filed October 12, 2001) in view of Nishi (U. S. Patent No. 5,194,893). Shiraishi '044 discloses in figure 1 a fly eye type integrator 7 having a plurality of optical elements 7a. Figures 16A and 16B and column 13, lines 8-35, disclose that the shape of the exit plane of each lens element 7a is rectangular and is similar to the effective area PA in the reticle (see specifically column 13, lines 18-21). Thus, Shiraishi '044 discloses substantially the invention claimed except for a movable member arranged to relatively move the mask or reticle with respect to the rectangular area during

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scanning exposure on a substrate. Nishi discloses a fly eye lens 7 and a movable member 14 driven by 51. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide Shiraishi '044 with a movable member arranged to relatively move a reticle with respect to the rectangular area during scanning in view of Nishi for the purpose of improving the scanning exposure. With respect to claim 64, figures 2-20 disclose other embodiments where the number of light source images in one direction is different than the number of light source images in another direction. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a certified translation of said papers has not been made of record. See MPEP § 201.15. It is further noted that only two of the three priority dates of the instant application are before the filing date (February 22, 1993) of Shiraishi '044. Figures 25-45 of the instant reissue application are part of a CIP (SN 08/365,532 which issued as Patent No. 5,35,044) that added new matter to the first original application (SN 08/147,259). The new matter in the CIP has a filing date of December 28, 1994, which is after the filing date of Shiraishi '044. If Applicant attempts to overcome this rejection by filing a certified English translation of the foreign priority papers, Applicant should point out where all the claimed subject matter has support in the originally filed application (S.N. 08/147,259)

4. Claims 43-48, 54-57, 64-68, and 76-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishi (U. S. Patent No. 5,194,893) in view of Shiraishi (U. S. Patent No. 5,335,044). Nishi discloses in figure 1 a scanning exposure apparatus with a fly eye lens 7 (or optical integrator as recited in column 4, line 44) and an illumination optical system arranged to illuminate a slit area (see Abstract and rectangular aperture AP in figures 2 and 3B). The mask R

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is movable relative to the slit area. Thus, Nish discloses substantially the invention claimed except for specifically disclosing that the cross sectional shape is substantially equal to the slit area. Shiraishi '044 discloses in figure 1 a fly eye type integrator 7 having a plurality of optical elements 7a. Figures 16A and 16B and column 13, lines 8-35, disclose that the shape of the exit plane of each lens element 7a is rectangular and is similar to the effective area PA in the reticle (see specifically column 13, lines 18-21). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide Nishi with an integrator having a plurality of optical elements with cross section shapes substantially equal to the slit area in view of Shiraishi for the purpose of more accurate exposure.

5. Applicant is reminded that any amendment to the claims must include a supplemental declaration before this application can be allowed.

***Allowable Subject Matter***

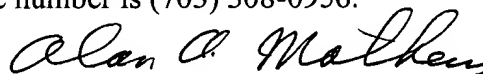
6. Claims 1-42 and 84-104 are allowed. Claims 49-53, 58-63, and 69-75 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan A. Mathews whose telephone number is (703) 308-1706. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703) 308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are 305-3431 for regular communications and 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Alan A. Mathews  
Primary Examiner  
Art Unit 2851

AAM  
December 30, 2001